# Indiana Crop & Weather Report

United States Dept of Agriculture

Indiana Agricultural Statistics Service
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## CROP REPORT FOR WEEK ENDING JUNE 8

### AGRICULTURAL SUMMARY

Most farmers in the central and northern regions of the state have finished planting corn. Drier soil conditions in the south allowed more farmers to get some of their corn and soybeans planted, but soil conditions remain wet in many southern fields, according to the Indiana Agricultural Statistics Service. Warmer temperatures and sunshine late in the week helped growth and development of major crops. Soybean planting is more than a week behind the average pace. Farmers remained busy spraying, side dressing corn and mowing and baling hay.

### FIELD CROPS REPORT

There were 3.9 **days suitable for fieldwork**. Ninety-two percent of the intended **corn** acreage is planted compared with 90 percent last year and 97 percent for the 5-year average. By area, 99 percent of the corn acreage is planted in the north, 99 percent in the central region and 66 percent in the south. Eighty-two percent of the corn acreage has **emerged,** compared with 67 percent last year and 91 percent for the average. Corn **condition** is rated 53 percent good to excellent compared with 56 percent last year at this time.

Seventy-eight percent of the **soybean** acreage is planted compared with 68 percent last year and 89 percent for the average. By area, 90 percent of the soybean acreage is planted in the north, 87 percent in the central region and 40 percent in the south. Fifty-six percent of the soybean acreage has **emerged** compared with 41 percent last year and 76 percent for the average.

Ninety-eight percent of the winter wheat is **headed** compared with 95 percent last year and 99 percent for the average. Winter wheat **condition** is rated 71 percent good to excellent compared with 54 percent last year at this time. Winter wheat is turning color in some of the southern regions of the state.

Other activities during the week were repairing equipment, moving grain to market, mowing roadsides, hauling manure and taking care of livestock.

### LIVESTOCK, PASTURE AND RANGE REPORT

**Pasture condition** is rated 18 percent excellent, 60 percent good, 19 percent fair, 2 percent poor and 1 percent very poor. First cutting of **alfalfa** hay is 56 percent complete compared with 50 percent last year and 66 percent for average. Livestock are in mostly good condition.

### CROP PROGRESS TABLE

| Crop | This Week | Last Week | Last Year | 5-Year Avg |
|---|---|---|---|---|
| | Percent | | | |
| Corn Planted | 92 | 85 | 90 | 97 |
| Corn Emerged | 82 | 70 | 67 | 91 |
| Soybeans Planted | 78 | 63 | 68 | 89 |
| Soybeans Emerged | 56 | 36 | 41 | 76 |
| Winter Wheat Headed | 98 | 96 | 95 | 99 |
| Tobacco Plants Set | 36 | 15 | 45 | 55 |
| Alfalfa First Cutting | 56 | 31 | 50 | 66 |

### CROP CONDITION TABLE

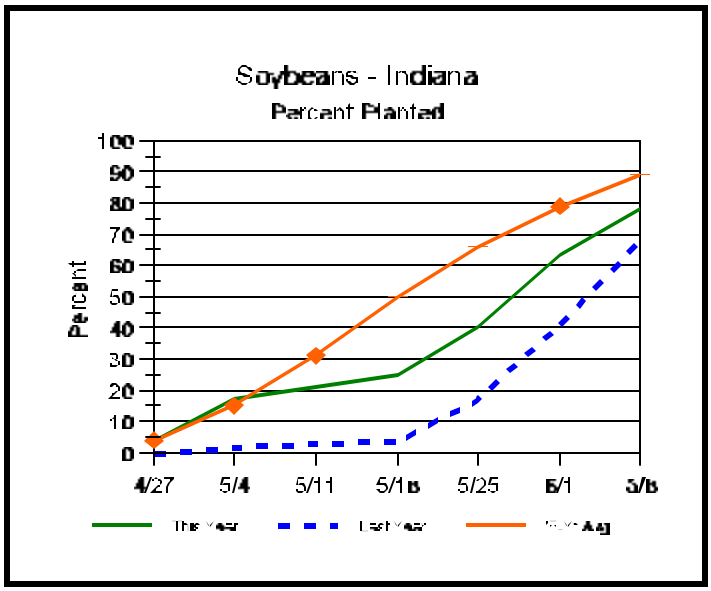
| Crop | Very Poor | Poor | Fair | Good | Excel-lent |
|---|---|---|---|---|---|
| | | | Percent | | |
| Corn | 3 | 10 | 34 | 45 | 8 |
| Soybean | 2 | 8 | 38 | 46 | 6 |
| Pasture | 1 | 2 | 19 | 60 | 18 |
| Winter Wheat 2003 | 3 | 9 | 17 | 51 | 20 |

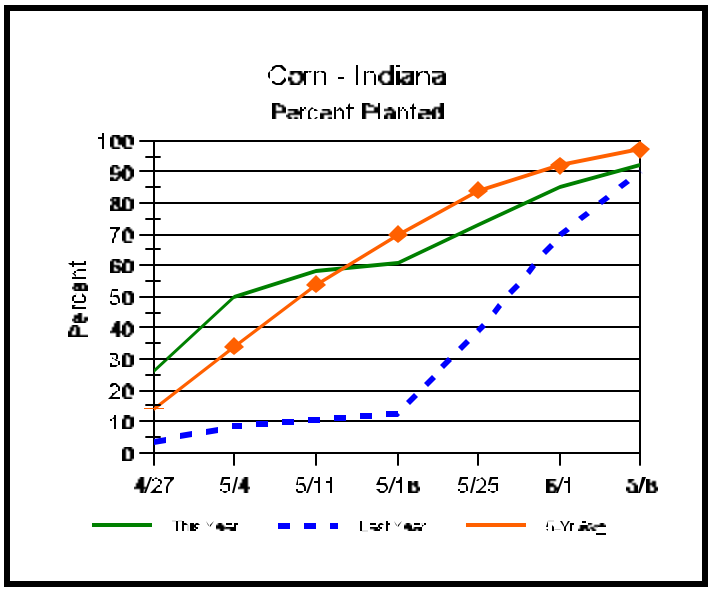
### SOIL MOISTURE & DAYS SUITABLE FOR FIELDWORK TABLE

| | This Week | Last Week | Last Year |
|---|---|---|---|
| | | Percent | |
| **Topsoil** | | | |
| Very Short | 0 | 0 | 0 |
| Short | 2 | 3 | 3 |
| Adequate | 71 | 67 | 58 |
| Surplus | 27 | 30 | 39 |
| **Subsoil** | | | |
| Very Short | 0 | 0 | 0 |
| Short | 6 | 6 | 1 |
| Adequate | 71 | 67 | 61 |
| Surplus | 23 | 27 | 38 |
| **Days Suitable** | 3.9 | 4.3 | 4.2 |

### CONTACT INFORMATION


--Greg Preston, State Statistician
--Bud Bever, Agricultural Statistician
E-Mail Address: nass-in@nass.usda.gov
http://www.nass.usda.gov/in/index.htm




## Other Agricultural Comments And News

### Cold Weather Impacts on the Soybean Plants

- Why are my soybeans growing so slowly?
- Why do my soybeans have a light green to nearly yellow color?
- Will my soybeans recover?

A number of individuals have expressed concerns regarding the very slow emergence and growth of soybeans. The name of the game is low temperatures, both of the air and the soil. For the past 14 days, nighttime air temperatures Wanatah were at or above 50 degrees Fahrenheit 11 nights, while the Agronomy Research Center, 10 nights had air temperatures at or above 50 degrees. Southern Indiana was not much better with low air temperatures at Dubois at or above 50 degrees Fahrenheit 6 of the past 14 nights. Soil temperatures fared a little better with nighttime lows at or below 60 degrees Fahrenheit about half of the time the past two weeks, but in all cases above 50 degrees. Mean bare soil temperatures have ranged in the low 60's to high 50's over much of the state the past two weeks.

Soybean seed will begin the process of germination at soil temperatures of 50 degrees Fahrenheit or above, but the process is very slow. The most rapid emergence occurs at soil temperatures of 70 to 80 degrees Fahrenheit. It is quite typical that at current soil temperatures, three or more weeks may be required for emergence. The major risk of slow emergence at low temperatures is the increased probability of injury to the seedling from fungi and/or insects.

Low nighttime air temperatures can cause injury to the soybean plant or can result in very slow vegetative growth. Many times a soybean plant can tolerate temperatures as low as 28 degrees Fahrenheit without injury, but under certain conditions temperatures well above freezing can result in plant injury or death. Cold conditions can result in water stress in the plant and can be one of the causes of low temperature injury to the soybean plant depending on the length of time exposed to the low temperatures and the relative humidity. Research data shows that chilling the soybean plant for one week at temperatures close to the temperatures of the past two weeks can result in reduced leaf elongation, rate of leaf emergence, and $CO_2$ uptake. Usually, all of these will return to normal when temperatures return to levels at or above 75 degrees Fahrenheit.

(Continued on Page 4)

# Weather Information Table

## Week ending Sunday June 8, 2003

| Station | Past Week Weather Summary Data | | | | | | | Accumulation April 1, 2003 thru June 8, 2003 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Air Temperature | | | | Precip. | | Avg 4 in Soil | Precipitation | | | GDD Base 50°F | |
| | Hi | Lo | Avg | DFN | Total | Days | Temp | Total | DFN | Days | Total | DFN |
| **Northwest (1)** | | | | | | | | | | | | |
| Chalmers_5W | 82 | 39 | 60 | -9 | 0.35 | 2 | 60 | 10.66 | +2.10 | 27 | 518 | -133 |
| Valparaiso_AP_I | 77 | 38 | 59 | -8 | 0.63 | 3 | | 10.12 | +1.19 | 26 | 470 | -76 |
| Wanatah | 79 | 35 | 59 | -8 | 0.76 | 5 | 62 | 10.85 | +2.41 | 28 | 410 | -86 |
| Wheatfield | 80 | 38 | 60 | -7 | 0.53 | 4 | | 11.28 | +3.02 | 26 | 484 | -40 |
| Winamac | 78 | 41 | 60 | -8 | 0.44 | 3 | 59 | 8.56 | +0.27 | 26 | 475 | -101 |
| **North Central(2)** | | | | | | | | | | | | |
| Plymouth | 79 | 40 | 59 | -10 | 0.53 | 2 | | 8.85 | +0.11 | 24 | 427 | -177 |
| South_Bend | 76 | 37 | 59 | -8 | 0.36 | 4 | | 10.11 | +2.04 | 25 | 459 | -65 |
| Young_America | 79 | 44 | 61 | -8 | 0.38 | 3 | | 7.74 | -0.45 | 27 | 552 | -22 |
| **Northeast (3)** | | | | | | | | | | | | |
| Columbia_City | 77 | 40 | 59 | -8 | 0.53 | 4 | 60 | 9.70 | +1.51 | 31 | 453 | -38 |
| Fort_Wayne | 78 | 41 | 59 | -9 | 0.53 | 2 | | 9.87 | +2.10 | 23 | 476 | -77 |
| **West Central (4)** | | | | | | | | | | | | |
| Greencastle | 79 | 39 | 58 | -12 | 0.33 | 3 | | 8.76 | -0.68 | 30 | 539 | -166 |
| Perrysville | 80 | 43 | 61 | -8 | 0.31 | 2 | 59 | 8.50 | -0.53 | 23 | 638 | +6 |
| Spencer_Ag | 79 | 43 | 60 | -9 | 0.55 | 2 | | 9.29 | -0.62 | 29 | 626 | -8 |
| Terre_Haute_AFB | 81 | 45 | 61 | -9 | 0.46 | 3 | | 8.05 | -1.27 | 23 | 689 | -9 |
| W_Lafayette_6NW | 79 | 43 | 60 | -8 | 0.43 | 2 | 65 | 9.93 | +1.37 | 29 | 583 | +2 |
| **Central (5)** | | | | | | | | | | | | |
| Eagle_Creek_AP | 79 | 44 | 60 | -10 | 0.25 | 4 | | 8.03 | -0.59 | 26 | 648 | -40 |
| Greenfield | 77 | 43 | 59 | -11 | 0.17 | 4 | | 9.32 | +0.12 | 29 | 597 | -38 |
| Indianapolis_AP | 78 | 45 | 61 | -9 | 0.46 | 2 | | 10.06 | +1.44 | 24 | 665 | -23 |
| Indianapolis_SE | 79 | 43 | 60 | -11 | 0.39 | 3 | | 9.57 | +0.54 | 24 | 595 | -70 |
| Tipton_Ag | 79 | 40 | 58 | -10 | 0.33 | 4 | 65 | 11.45 | +2.82 | 24 | 480 | -61 |
| **East Central (6)** | | | | | | | | | | | | |
| Farmland | 78 | 41 | 59 | -8 | 0.71 | 3 | 55 | 7.73 | -0.71 | 23 | 541 | +20 |
| New_Castle | 75 | 42 | 57 | -11 | 0.37 | 3 | | 6.48 | -3.07 | 25 | 442 | -95 |
| **Southwest (7)** | | | | | | | | | | | | |
| Evansville | 81 | 47 | 63 | -10 | 0.79 | 2 | | 11.10 | +1.33 | 31 | 847 | -26 |
| Freelandville | 81 | 42 | 61 | -10 | 0.37 | 2 | | 11.26 | +1.29 | 27 | 728 | -7 |
| Shoals | 80 | 41 | 61 | -9 | 1.20 | 3 | | 11.48 | +0.97 | 27 | 717 | +11 |
| Stendal | 80 | 45 | 63 | -9 | 0.91 | 2 | | 13.92 | +3.10 | 28 | 794 | -2 |
| Vincennes_5NE | 80 | 41 | 62 | -9 | 0.47 | 3 | 59 | 11.26 | +1.29 | 32 | 752 | +17 |
| **South Central(8)** | | | | | | | | | | | | |
| Leavenworth | 78 | 46 | 62 | -8 | 0.81 | 3 | | 11.62 | +1.10 | 31 | 740 | +29 |
| Oolitic | 80 | 43 | 60 | -9 | 0.57 | 2 | 62 | 10.46 | +0.55 | 31 | 666 | +13 |
| Tell_City | 81 | 48 | 66 | -6 | 0.68 | 3 | | 12.86 | +2.14 | 27 | 929 | +116 |
| **Southeast (9)** | | | | | | | | | | | | |
| Brookville | 79 | 42 | 59 | -9 | 0.67 | 2 | | 8.43 | -1.06 | 27 | 670 | +86 |
| Milan_5NE | 77 | 43 | 60 | -8 | 0.87 | 3 | | 10.92 | +1.43 | 37 | 636 | +52 |
| Scottsburg | 77 | 41 | 61 | -10 | 1.05 | 2 | | 13.41 | +3.76 | 31 | 702 | -34 |

DFN = Departure From Normal (Using 1961-90 Normals Period).
GDD = Growing Degree Days.
Precipitation (Rainfall or melted snow/ice) in inches.
Precipitation Days = Days with precip of .01 inch or more.
Air Temperatures in Degrees Fahrenheit.



The above weather information is provided by AWIS, Inc.
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## **Cold Weather Impacts on the Soybean Plants** (Continued)

Low soil temperatures also result in a reduction of nodule formation and activity. Soybean plants that had just emerged prior to the cold soil temperatures may exhibit nitrogen deficiencies once air temperatures return to normal and the plants grow rapidly. This is the result of a demand by the plant for nitrogen greater than that available from the cotyledons and the soil. Once soil temperatures warm to a level suitable for nodule activity, the leaves will become a darker green color and the plant will resume normal growth.

All of these stresses may result in a plant with lower internodes shorter than normal, hence short plant for their age. Most of the stresses discussed above should not have any long-term effects on the soybean crop with the exception of the fungal disease potential.

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